applied catalysis

AN INTERNATIONAL JOURNAL DEVOTED TO CATALYTIC SCIENCE AND ITS APPLICATIONS

VOL. 64, NO. 1–2 **CONTENTS** **12 SEPTEMBER 1990**

(Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database available on STN International®, Abstracts/Contents Lists published in API Abstracts/Catalysts & Catalysis, Chemical Abstracts, ChemInform, Current Contents/Physical, Chemical and Earth Sciences, Current Contents/ Engineering, Technology & Applied Sciences, Engineering Index, Metals Abstracts, Science Citation Index, Theoretical Chemical Engineering Abstracts, Automatic Subject Citation Alert and SCISEARCH)

Applied Catalysis Letters

Highly selective reduction of nitrogen oxides with hydrocarbons over H-form zeolite catalysts in oxygen-rich atmospheres
H. Hamada, Y. Kintaichi, M. Sasaki and T. Ito (Ibaraki, Japan) L1

Comparative activity study in thiophene hydrodesulfurization of molybdena/alumina catalysts prepared by impregnation and solid/solid wetting
T.I. Korányi, Z. Paál (Budapest, Hungary), J. Leyrer and H. Knözinger (Munich, F.R.G.) L5

Recent progress in catalytic technology in Japan — a Review
M. Misono and N. Nojiri (Tokyo, Japan) 1

Characteristics and performance of SAPO-34 catalyst for methanol-to-olefin conversion
J. Liang, H. Li, S. Zhao, W. Guo, R. Wang and M. Ying (Dalian, P.R. China) 31

Characteristic action of zirconium dioxide in the decomposition of alkylamines
B.-Q. Xu, T. Yamaguchi and K. Tanabe (Sapporo, Japan) 41

Selective steam reforming of alkylated hydrocarbons and coal liquids over NiO–Fe_2O_3 catalysts
M. Yamamoto, R. Yoshida, Y. Maekawa and T. Kotanigawa (Sapporo, Japan) 55

XPS studies of Pt–Sn naphtha reforming catalysts
Y.-X. Li, J.M. Stencel and B.H. Davis (Lexington, KY, U.S.A.) 71

Catalytic alkylation of phenol with methanol: factors influencing activities and selectivities. I. Effect of different acid sites evaluated by studying the behaviour of the catalysts: γ-alumina, Nafion-H, silica–alumina and phosphoric acid
E. Santacesaria (Naples, Italy), D. Gelosa (Milan, Italy), D. Grasso (Naples, Italy) and S. Carrà (Milan, Italy) 83

Catalytic alkylation of phenol with methanol: factors influencing activities and selectivities. II. Effect of intracrystalline diffusion and shape selectivity on H-ZSM5 zeolite
E. Santacesaria (Naples, Italy), D. Gelosa (Milan, Italy), M. Di Serio, P. Ciambelli (Naples, Italy) and S. Carrà (Milan, Italy) 101

Use of principal component analysis in catalyst characterization: Catalytic cracking of decalin over Y-zeolites
H.B. Mostad, T.U. Riis and O.H. Ellestad (Oslo, Norway) 119

Kinetic study of the carbonyl sulphide synthesis from carbon dioxide and carbon disulphide on alumina catalysts
L. Nemeth, G. Gati (Százhalombatta, Hungary), A. Gervasini, A. Auroux (Villeurbanne, France), G. Mink, I.S. Pap and T.Szekely (Budapest, Hungary) 143

Preparation of vanadium phosphorus oxide catalysts: Influence of macroscopic P:V ratio in determining phase composition after calcination
M. O'Connor, F. Dason and B.K. Hodnett (Limerick, Ireland) 161

Activity and selectivity of 1-hexene conversion on SAPO-11 and Pd/SAPO-11
S.J. Choung and J.B. Butt (Evanston, IL, U.S.A.) 173

Reactivity and stability of sulphided thin films of molybdenum to dry air
P.A. Spevack and S. McIntyre (London, Ont., Canada) 191

Catalytic properties and surface states of cobalt-containing oxidation catalysts
E. Garbowski, M. Guenin, M.-C. Marion and M. Primet (Villeurbanne, France) 209

Chemical interaction of palladium particles with iron cations in NaY
S.T. Homeyer, L.L. Sheu, Z. Zhang, W.M.H. Sachtler (Evanston, IL, U.S.A.), V.R. Balse and J.A. Dumesic (Madison, WI, U.S.A.) 225

Fourier transform-infrared study of the adsorption and coadsorption of nitric oxide, nitrogen dioxide and ammonia on TiO_2 anatase
G. Ramis (Milan, Italy), G. Busco, V. Lorenzelli (Genova, Italy) and P. Forzatti (Milan, Italy) 243

Fourier transform-infrared study of the adsorption and coadsorption of nitric oxide, nitrogen dioxide and ammonia on vanadia–titania and mechanism of selective catalytic reduction
G. Ramis (Milan, Italy), G. Busca (Genova, Italy), F. Bregani and P. Forzatti (Milan, Italy) 259

The effect of platinum modification by alloying and sulfur on the hydrogenolysis and aromatization of methylcyclopentane
M.J. Dees, M.H.B. Bol and V. Ponec (Leiden, The Netherlands) 279

Mordenite with long life and selectivity for methanol conversion to gasoline: Mordenite modified by barium ion exchange, dealumination and chemical vapor deposition of silicon methoxide
M. Sawa, K. Kato, K. Hirota, M. Niwa and Y. Murakami (Nagoya, Japan) 297

Catalysis of carbon monoxide methanation by deep sea manganate minerals
A.L. Cabrera, M.B. Maple and G. Arrhenius (San Diego La Jolla, CA, U.S.A.) 309

Author Index 321
Subject Index 324

News Brief
United Institute of Chemistry and Chemical Technology, Krasnoyarsk N2
50 Years DSM Research N4
R & D on a Modified FT Process for Producing High Octane Gasoline N4
Catalysis and Surface Science N5
Seminar in Honour of the late D.V. Sokolsky N7
BP Chemicals Polyethylene Gas-Phase Technology Wins Environmental Awards ... N8
Catalytic Articles N9
Calendar of Forthcoming Events N9

In articles with more than one author, the name of the author to whom correspondence should be addressed is indicated by a 6-pointed asterisk (*)